Draft
Environmental Assessment

Canyon Ferry WMA Prescribed Fire Program

August 2019

Draft Environmental Assessment
CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action: Montana Fish, Wildlife & Parks (FWP) is proposing to utilize prescribed fire on the Canyon Ferry WMA as needed to improve wildlife habitat conditions for waterfowl, upland game birds (primarily pheasant) and big game (primarily white-tailed deer and moose). Prescribed fire would be utilized to revitalize decadent stands of dense nesting cover and other areas of herbaceous vegetation, improve the structure of decadent stands of cattails and bulrushes or to help kill cattails if needed to create more open water in ponds, and to regenerate decadent stands of willows and sprouting shrubs.

2. Agency authority for the proposed action:

Most of Canyon Ferry WMA is administered by the Bureau of Reclamation with a small portion (approximately 129 acres) being owned by FWP. FWP manages the CFWMA through a management agreement (No. R12MU60088, 2012) with the Bureau of Reclamation.

3. Anticipated Schedule: Prescribed fire would be used as needed around the Canyon Ferry WMA and as time, conditions, manpower and funding allows. The location and amount of acreage to be burned in any one year (if any) would vary on an annual basis. Prescribed burns would typically occur during the dormant season in late winter to early spring (late February – early April) unless it was deemed that another time frame was more appropriate to achieve management objectives.

4. Location affected by proposed action (county, range and township – included map):

The affected area would be the Canyon Ferry WMA located in 8N 2E, 7N 1E and 7N 2E just north of Townsend in Broadwater County, MT (see Appendix A for maps).

5. Project size -- estimate the number of acres that would be directly affected that are currently:

	Acres		Acres
(a) Developed:		(d) Floodplain	0
Residential	0		
Industrial	0	(e) Productive:	
(existing shop area)		Irrigated cropland	0
(b) Open Space/	2,641	Dry cropland	0
Woodlands/Recreation		Forestry	0
(c) Wetlands/Riparian	1,000	Rangeland	0
Areas		Other	0

6. Permits, Funding & Overlapping Jurisdiction.

(a) Permits: A burn permit from Broadwater County would be obtained prior to any prescribed burn taking place.

(b) Funding: If additional funding was necessary for any prescribed fire work, funding would potentially come from the BOR through its cooperative funding agreement with FWP and from FWP. If additional funding was needed, it would likely be cost shared between BOR and FWP. If no additional funding was necessary to do a prescribed burn, then the work involved would be done as part of the regular Operation and Maintenance activities of the CFWMA which are funded by FWP and/or BOR

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name	Type of Responsibility

Bureau of Reclamation – administers most of the property for the federal government

FWP - manages the CFWMA through a management agreement (No. R12MU60088, 2012) with the Bureau of Reclamation.

7. Narrative summary of the proposed action:

Prescribed fire would be used as needed around the Canyon Ferry WMA to improve habitat conditions for waterfowl, upland game birds (primarily pheasants) and big game (primarily white-tailed deer and moose). Prescribed fire would be used to periodically burn stands of cattails and bulrushes to improve stand structure as needed or to help kill existing stands of cattails to increase the amount of open water in smaller duck ponds if needed. Some mechanical treatment (slashing) of vegetation might occur in some areas prior to a prescribed burn to help manage/control the prescribed burn. The effects of prescribed fire on cattails will vary depending on when (time of year) they are burned and upon whether they are subsequently flooded or not. Prescribed fire may also be used to at least temporarily remove willows and other dense stands of brush from pond shorelines in areas to improve waterfowl access to adjacent nesting and brood-rearing habitat. Prescribed fire would also be used to manipulate and rejuvenate decadent areas of herbaceous cover across the CFWMA as needed including areas of dense nesting cover. Lastly, prescribed fire would be used to manipulate and rejuvenate decadent stands of woody (browse) cover (willows and sprouting shrubs) across the CFWMA as needed. Willows and other sprouting shrubs will typically respond favorably to the use of prescribed fire depending upon when they are burned. The amount of acreage to be burned in any one year (if any) would vary on an annual basis. Prescribed burns would typically occur in late winter to early spring (late February – early April) unless it was deemed that another time frame was more appropriate to achieve management objectives. Prescribed fire would not be used to burn irrigated agricultural areas that are cropped by agricultural lessees.

8. Description and analysis of <u>reasonable</u> alternatives:

<u>Alternative A:</u> No Action

FWP would not utilize prescribed fire on the CFWMA to manage habitat quality for waterfowl, upland game birds and big game species. This action would retain the current status quo regarding impacts of many of the aspects of the physical and human environment. The action would likely result in the continued degradation of habitat quality over time for waterfowl, upland birds, and big game that utilize the CFWMA.

<u>Alternative B:</u> Preferred Alternative

FWP is proposing to utilize prescribed fire as needed around the Canyon Ferry WMA to improve habitat conditions for waterfowl, upland game birds (primarily pheasants) and big game (primarily white-tailed deer and moose). Prescribed fire would be utilized to revitalize decadent stands of dense nesting cover and other areas of herbaceous vegetation, improve the structure of decadent stands of cattails and bulrushes or to help kill cattails if needed to create more open water in ponds, and to regenerate decadent stands of willows and sprouting shrubs.

The location and amount of acreage to be burned in any one year (if any) would vary on an annual basis. Prescribed burns would typically occur during the dormant season in late winter to early spring (late February – early April) unless it was deemed that another time frame was more appropriate to achieve management objectives. Prescribed fire would not be used to burn areas that are cropped by agricultural lessees.

9. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

Montana Fish, Wildlife & Park's management agreement (Management Agreement No. R12MU60088, 2012) with the Bureau of Reclamation.

Approved (by BOR) prescribed fire burn plan when prescribed burns for habitat improvement are done. Burn plans and prescribed fires will be done by USFS and/or DNRC fire personnel. Use of USFS and/or DNRC fire personnel will require and agreement between the BOR and/or FWP and those agencies.

<u>PART II. ENVIRONMENTAL REVIEW CHECKLIST</u>

A. PHYSICAL ENVIRONMENT

Evaluation of the impacts of the <u>No Action</u> Alternative including secondary and cumulative impacts on the Physical Environment.

There would be no changes to the status quo regarding the impacts to land resources under the No Action Alternative. There would be no change from the status quo regarding impacts on air resources under the No Action Alternative, as there would be no smoke/emissions produced as a result of doing prescribed burns. There would be no changes to the status quo of impacts to water resources under the No Action Alternative, as no prescribed burning would be done to potentially increase the amount of open surface water in waterfowl ponds and there would be no removal of vegetation through burning which could

potentially lead to a temporary increase in surface run-off. The quality of vegetation would continue to decline in some cases since no vegetation would be burned. Residual litter would continue to increase and vegetation in some cases would continue to become further decadent. The structure of cattail and bulrush stands would continue to degrade and in the case of some of the small waterfowl ponds the amount of open surface water would continue to decrease. Otherwise, there would be no expected change to the status quo regarding impacts on vegetation under the No Action Alternative. Habitat quality for waterfowl, upland game birds, and big game would continue to decline which might negatively impact local abundance of those species under the No Action Alternative. Under the No Action Alternative the structure of cattail and bulrush stands wouldn't be improved by removing the old dead squashed down material, and some cattail stands wouldn't be killed to increase the amount of open surface water in some of the small waterfowl ponds resulting in continual declines in the quality of nesting waterfowl habitat. Old decadent stands of dense nesting cover, smooth brome and reed canary grass wouldn't be burned to remove excessive amounts of accumulated litter and to improve their structure resulting in continued declines in upland game bird and waterfowl nesting cover. Without prescribed fire old decadent or dead stands of willow and sprouting shrubs would remain and not be revitalized by prescribed fire resulting in a continued decline in the quality of browse habitat for big game. Otherwise, there would be little to no expected change to the status quo regarding impacts on fish and wildlife resources under the No Action Alternative.

Evaluation of the impacts of the Proposed Actions (Alternatives B) including secondary and cumulative impacts on the Physical Environment.

1. LAND RESOURCES **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Soil instability or changes in geologic substructure?		**X**				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			**X**		**X**	**1b.**
c. Destruction, covering or modification of any unique geologic or physical features?		**X**				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			**X**		**X**	**1d.**
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		**X**				

1b and 1d - Any prescribed fire on the CFWMA would temporarily remove vegetation covering the soil in the area where the prescribed fire was done which could potentially lead to a small amount of erosion. However, impacts on the soil resource from the loss of plant cover would be limited given that most, if not all, of the prescribed burning done on the CFWMA would be done in late winter -early spring (dormant season). Given the expected season of burning (typically dormant season, late February – early

April), fire severity would be expected to be low, and new plant growth would be expected to occur as soon as the plants broke dormancy resulting in a new protective cover of vegetation. So, the amount of time that the soil would be bare would be limited. Also, the topography of the CFWMA is pretty-flat, and since the CFWMA typically only receives about 1.5 inches of precipitation from February – April, the opportunity and potential for run-off causing erosion, siltation and deposition is quite limited. Conducting prescribed burns when soil moistures were higher would also limit the potential for damage to the soil resource. Prescribed fire would also be expected to have a positive benefit to the soil resource, as prescribed burning would allow nutrients that are locked in the vegetation to be potentially returned to the soil increasing soil fertility and plant productivity at least in the short-term.

2. AIR **Will the proposed action result in:**	**IMPACT ***					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)			**X**		**X**	**2a.**
b. Creation of objectionable odors?			**X**		**X**	**2b.**
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		**X**				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		**X**				
e. For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regulations? (Also see 2a.)		**X**				**NA**

2a & 2b - Any prescribed burning would result in a temporary emission of air pollutants, a localized deterioration of ambient air quality and the potential creation of objectionable odors. Impacts would be short in duration – however long it took to do the prescribed burn. The expectation is that most burns would be completed in a day or two at the most. Any negative impacts on air quality could also be mitigated by such things as burn timing, firing technique, wind direction and speed and atmospheric conditions when any burn was planned to be conducted. Winds directing smoke away from populated areas are important when burning cattail wetlands as cattail stands can produce heavy black smoke. In addition, any prescribed burning done on the CFWMA as a result of this EA would be done by either USFS or DNRC fire personnel. Both of those agencies are participating members of the Montana state Smoke Management Program/Smoke Management Units (SMU). The Smoke Management plan's intent is to minimize or prevent smoke impacts while using fire to accomplish land management objectives. SMU members observe operating procedures administered by the SMU in order to prevent adverse smoke impacts including the use of the airshed management system database to coordinate burning through the SMU.

NA – Not applicable, i.e. not a P-R/D-J project

3. WATER Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?			X		X	3b.
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?			X			3d.
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?			X		X	3h.
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		X				NA
m. For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		X				NA

3b and 3h - Any prescribed fire on the CFWMA would temporarily remove vegetation covering soil in the area where the prescribed fire was done which could potentially lead to a small amount of runoff. However, given the expected season of burning (typically dormant season), fire severity would expected to be low, and new plant growth would be expected to occur as soon as the plants broke dormancy resulting in a new protective cover of vegetation. So, the amount of time that the soil would be bare would be limited reducing the potential for runoff. Also, the topography of the CFWMA is pretty-flat, and since the CFWMA typically only receives about 1.5 inches of precipitation from February – April, the opportunity and potential for run-off is quite limited.

3d – Prescribed fire would be used in some instances in combination with flooding to kill stands of cattails in smaller waterfowl ponds to increase the amount of open surface water. The desired ratio of cover to open water is 50:50 for waterfowl.

NA – Not applicable, i.e. not a P-R/D-J project

4. VEGETATION Will the proposed action result in?	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X		X	4a.
b. Alteration of a plant community?			X		X	4b.
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X		X	4e.
f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland?			X			4f.
g. Other:						

4a, 4b, 4e, 4f – The impacts of prescribed fire on vegetation varies species by species and impacts on an individual species can vary depending upon season of burning and burn severity. Mechanical treatment (slashing) of vegetation could also be used in some areas prior to doing a prescribed burn to help manage/control the prescribed burn and what areas and or species get burned. Some species may respond favorably to fire, while others may be negatively impacted or show little to no impact. Duration of impacts can also vary species by species and may again depend upon season of burning and burn severity. Most of the vegetation species found on the CFWMA would likely respond positively or at least neutrally to prescribed fire especially to dormant season fires which would most likely be used. Prescribed fire can remove old layers of duff/litter exposing bare soil which may improve germination of some species and/or allow some species to become established in those areas. While this isn't a P-R/D-J project, wetlands/marsh areas would be periodically burned to improve cattail and bulrush structure (remove old dead/decadent, fallen over material), or in the case of some cattail stands burns may be done in combination with post-fire flooding to kill cattails to increase the amount of open surface water for waterfowl. Following is the expected impacts of prescribed fire on a variety of vegetation species that may be found on the CFWMA – information taken from USFS's Fire Effects Information System's (FEIS) website (literature citations are not provided here given the number, but they can be found on the FEIS website):

Russian olive (*Eleagnus angustifolia*) – May be topped killed by fire. Observations indicate that Russian olives may sprout from trunks, root crowns, and/or roots following prescribed fire. Some indication that fire scarification of seeds may enhance germination. In some areas (TX) mixed stand species were observed to become monotypic stands of Russian olive following prescribed fire, so some post fire management of resprouting Russian olives may be desired or needed depending upon the response observed.

Silver buffaloberry (*Shepherdia argentea*) – Has a fair tolerance to fire in the dormant state and sprouts from rhizomes or root crowns following fire. Will probably be killed by 'hot' fires in late summer.

Chokecherry (*Prunus virginiana*) – Well adapted to disturbance by fire. It may be top killed, but it will resprout rapidly and prolifically from surviving root crowns and rhizomes. Seed germination also improves with heat treatment suggesting that fire scarification is an important adaptation. Will often increase following a fire.

Golden currant (*Ribes aureum*) – Will likely be killed by severe fires. May survive low to moderate severity fires by sprouting rhizomes. Regeneration is probably favored by low to moderate severity fires as germination of seeds is generally enhanced by scarification.

Rocky Mountain juniper (Juniperus scopulorum) – Rocky Mountain juniper trees up to 3-4' in height are easily killed by fire. Trees are typically susceptible to fire for their first 20 years or so. Older trees may survive surface fires provided their branches don't catch fire. Post-fire reestablishment is solely by seed as the species doesn't sprout. Where it is desirable to maintain Rocky Mountain juniper it shouldn't be burned and/or efforts should be taken to ensure some trees survive to maintain a seed source.

Bebb willow (*Salix bebbiana*) – While fire will top-kill above ground parts, the species is greatly favored by low to moderate severity fire in moist habitats as it will sprout rapidly from basal stems following disturbance. Quick hot fires will maximize sprouting. Light seeds will also readily recolonize exposed mineral soil after hot fires.
Narrowleaf willow (*Salix exigua*) – Top-killed by fire but readily resprouts from roots, root crowns and basal stems following fire. More sprouts are produced after quick, intense fires than slower fires. Like with other willow species, fires that burn the upper layers of soil can destroy or expose roots and root crowns resulting in mortality. Seeds germinate well on wet and exposed mineral or organic soil following fire.

Peachleaf willow (*Salix amygdaloides*) – Typically top-killed by fire but will resprout from root crowns, stems and/or boles under low to moderate severity fires. Seedlings may establish on a new burn area if the fire exposes mineral soil on a favorably moist, open site.

Narrowleaf cottonwood (*Populus angustifolia*) – Fire may partially or completely top-kill trees depending upon fire severity. Younger trees will resprout from roots and root crowns following light to moderate severity fires. High water tables aid in the sprouting ability and ability of sprouts to survive. Sprouting decreases proportionately as trees age, so prescribed fire is not recommended in stands that are past the pole and early maturation stages of development unless measures are taken to protect older trees.

Alfalfa (*Medicago sativa*) – Will survive most fires by sprouting after being top-killed. Will be killed by severe fires. Responds best productivity wise to early season (Mar – Jun) fires.

Canada goldenrod (*Solidago canadensis*) – Fire top kills the plant, but species is generally enhanced by low to moderately severe fire as it regenerates after fire from on-site stored seed and rhizomes.

Missouri goldenrod (*Solidago missouriensis*) – While the species may be top-killed, it has good fire tolerance as it can reproduce (sprouting) from rhizomes or a caudex.

Canada thistle (*Cirsium arvense*) - May survive fire even when the plant is top-killed given extensive root system. Reproduces by sprouting and seed, so fires may create conditions that are favorable for its establishment and/or spread, so postfire monitoring and control are essential. Dormant season burns may result in fewer total and fewer functional seed heads that year. Overall response to fire may depend upon how competing native vegetation responds to fire. Fires may also remove taller vegetation that hides the species allowing for better control of the species post-fire.

Houndstongue (*Cynoglossum officinale*) – May survive fire even when the plant is top-killed given deep taproot. Reproduces by seed and fires may create conditions that are favorable for its establishment, so postfire monitoring and control are essential. Fires may also remove taller vegetation that hides the species allowing for better control of the species post-fire.

Spotted knapweed (*Centaurea maculosa*) – Likely to survive fire even when the plant is top-killed given deep taproot, if the root crown isn't killed. Reproduces by sprouting from the root crown and by seed. Fires may create conditions that are favorable for its establishment, so postfire monitoring and control are essential. Would be favored by high severity fires. Overall response to fire may depend upon how competing native vegetation responds to fire. Fires may also remove taller vegetation that hides the species allowing for better control of the species post-fire.

Stinging nettle (*Urtica dioica*) – Likely to be top-killed by fire, but shallow rhizomes will likely survive a low intensity fire allowing the plant to survive and reproduce. Removal of litter by fire may encourage stinging nettle growth and provide suitable germination sites for seed. Overall response to fire may depend upon how competing native vegetation responds to fire.

Crested wheatgrass (*Agropyron cristatum*) – Species is slightly damaged to undamaged by fire. Typically burns quickly and is therefore less susceptible to fire damage, top-killed but underground parts survive. Post-fire recovery is typically rapid.

Smooth brome (*Bromus inermis*) – Species is typically rhizomatous and even though it is top-killed by fire it survives fire by sprouting from rhizomes. Periodic early spring (late March – April) burns promotes rhizomatous smooth brome by removing litter from sod bound plants. Late spring (mid-May or later) burns can potentially damage the plant.

Cheatgrass (*Bromus tectorum*) – Live cheatgrass plants are susceptible to heat kill. However, the annual species can become reestablished from soil-stored and transported seeds after fire. Chances of seeds surviving a fire are enhanced once they are dispersed onto or beneath the soil surface. Highly adapted to frequent fire regimes and can change fire regimes leading to cheatgrass dominance. Species is a strong competitor in the post-fire environment, so postfire monitoring and control are essential. Overall response to fire may depend upon how competing native vegetation responds to fire.

Basin wildrye (*Leymus cinereus*) – Most likely to survive, resprout and recover rapidly when burned during the dormant season. Typically, coarseness of the plant prevents prolonged burning, allowing plants to avoid heat damage to their basal growing

points. While plants will be top-killed, plants will resprout from surviving root crowns and rhizomes. Will grow vigorously after fire when moisture is adequate. May be killed by early-season fires combined with dry soil conditions. Older plants that have a lot of accumulated dead material in their crowns may be more susceptible to being killed by fire.

Reed canarygrass (*Phalaris arundinacea*) – Species is top-killed by fire but due to its rhizomatous nature it will typically survive and resprout under low and moderate intensity fires. Species typically persists and may increase in abundance following fire. It may be killed by high-severity fires in some plant communities. Seeds in the soil bank also typically survive fire and fire may stimulate germination of the seeds.

Common spikerush (*Eleocharis palustis*) – Only above ground portions of the plant are removed by fire. Survives fire as rhizomes are typically underwater or in saturated soil and thus well protected from heat of fire – resprouts following fire. Fires done under severe drought conditions can kill plants.

Chairmaker's bulrush (*Schoenoplectus americanus*) – Only above ground portions of the plant are removed by fire. Survives fire as rhizomes are sufficiently buried in the soil to be well protected from heat of fire – resprouts following fire. Fires done under severe drought conditions can kill plants.

Softstem bulrush *(Schoenoplectus tabernaemontani*) - Only above ground portions of the plant are removed by fire. Survives fire as rhizomes are sufficiently buried in the soil to be well protected from heat of fire – resprouts following fire. Fires done under severe drought conditions can kill plants.

Common/broadleaf cattail (*Typha latifolia*) - Fire removes the above ground portions of the plant, but the plant is rhizomatous and thus will resprout following fire. Mortality may occur under severe fire severity in drained marshes. Fires that burn deep into the peat layer of a dry marsh may also cause mortality. Spring fires in drained marshes following a winter with very little moisture may also cause cattail mortality. Flooding cattail stands after burning can cause mortality – need to submerge post-fire stubble.

5. FISH/WILDLIFE **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Deterioration of critical fish or wildlife habitat?		**X**				
b. Changes in the diversity or abundance of game animals or bird species?			**X**			**5b.**
c. Changes in the diversity or abundance of nongame species?			**X**			**5c.**
d. Introduction of new species into an area?		**X**				
e. Creation of a barrier to the migration or movement of animals?		**X**				
f. Adverse effects on any unique, rare, threatened, or endangered species?		**X**				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		**X**				
h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)		**X**				**NA**
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		**X**				**NA**

5b. Given that most of the prescribed burns would be done during the late winter/early spring prior to nesting or birthing season, direct mortality of big game or bird species would not be expected. Non-

dormant season burning (if it occurred) would typically be limited to burning cattail stands in small waterfowl ponds and as such would be very limited in size. It would be expected that any animals or birds would be able to escape, if necessary, from any areas that were being burned, if not the loss of a few individuals would have no significant impact on populations of those species. Using prescribed fire to improve habitat conditions for waterfowl, upland game birds and big game on the CFWMA could increase the localized abundance of those species.

5c. While some mortality of small nongame species that were unable to escape from any prescribed fire might occur, the loss of a few individuals would have no significant impact on populations of those species.

NA – Not applicable, i.e. not a P-R/D-J project.

B. HUMAN ENVIRONMENT

Evaluation of the impacts of the <u>No Action</u> Alternative including secondary and cumulative impacts on the Human Environment.

With the lack of prescribed fire under the No Action Alternative, it's expected that there would continue to be declines in the overall habitat quality for waterfowl, upland game birds, big game species and non-game species on the CFWMA. A continued decline in habitat quality for those species could negatively impact local abundance of those species which might negatively impact the quantity or quality of recreational opportunities on the CFWMA such as hunting and bird watching. For the remainder of the categories related to the human environment there are expected to be no changes from the status quo regarding effects under the No Action Alternative.

Evaluation of the impacts of the Action Alternatives (Alternatives B and C) including secondary and cumulative impacts on the Human Environment.

6. <u>NOISE/ELECTRICAL EFFECTS</u> **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Increases in existing noise levels?		**X**				
b. Exposure of people to severe or nuisance noise levels?		**X**				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		**X**				
d. Interference with radio or television reception and operation?		**X**				

7. LAND USE Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				

8. RISK/HEALTH HAZARDS Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?			X		X	8c.
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		X				NA

8c. Any prescribed burning would result in a temporary emission of air pollutants and a localized deterioration of ambient air quality which could negatively impact individual with breathing issues. Impacts would be short in duration and localized in nature, i.e. areas in proximity to the burn. The expectation is that most burns would be completed in a day or two at the most. Any negative impacts on air quality could also be mitigated by such things as burn timing, firing technique, wind direction and speed and atmospheric conditions when any burn was planned to be conducted. In addition, any prescribed burning done on the CFWMA as a result of this EA would be done by either USFS or DNRC fire personnel. Both of those agencies are participating members of the Montana state Smoke Management Program/Smoke Management Units (SMU). The Smoke Management plan's intent is to minimize or prevent smoke impacts while using fire to accomplish land management objectives. SMU members observe operating procedures administered by the SMU in order to prevent adverse smoke impacts including the use of the airshed management system database to coordinate burning through the SMU. News releases in the local newspapers would also be utilized to make individuals aware that prescribed burns were being conducted on the CFWMA so that they could plan accordingly.

NA – Not applicable, i.e. not a P-R/D-J project

9. COMMUNITY IMPACT **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		**X**				
b. Alteration of the social structure of a community?		**X**				
c. Alteration of the level or distribution of employment or community or personal income?		**X**				
d. Changes in industrial or commercial activity?		**X**				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		**X**				
10. PUBLIC SERVICES/TAXES/UTILITIES **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:			**X**			**10a.**
b. Will the proposed action have an effect upon the local or state tax base and revenues?		**X**				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		**X**				
d. Will the proposed action result in increased use of any energy source?		**X**				
e. Define projected revenue sources		**X**				
f. Define projected maintenance costs.		**X**				

10a. Would require an agreement between the Bureau of Reclamation (administers most of the land on the CFWMA) and/or FWP and the USFS and/or DNRC to utilize USFS and/or DNRC fire personnel to conduct prescribed burns on the Canyon Ferry WMA.

11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?			X			11a.
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?			X			11c.
d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		X				NA

11a. Some individuals may find burned areas aesthetically offensive. However, given the expected season of burning (typically dormant season, late February – early April), fire severity would be expected to be low, and new plant growth would be expected to occur as soon as the plants broke dormancy resulting in a new vegetation growth in areas that were burned. So, the amount of time that an area would show obvious signs of recent burning would be limited.

11c. Prescribed fire would be utilized to improve the overall habitat quality for waterfowl, upland game birds, big game species and non-game species on the CFWMA. Improving the overall habitat quality of the CFWMA for the species mentioned could increase the local abundance of those species which might positively impact the quantity or quality of recreational opportunities on the CFWMA such as hunting and bird watching.

12. CULTURAL/HISTORICAL RESOURCES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)		X				NA

NA – Not applicable, i.e. not a P-R/D-J project

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?			X		X	13b.
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		X				NA
g. For P-R/D-J, list any federal or state permits required.		X				NA

13a. While there is always the risk of a prescribed fire escaping and burning a larger area than desired, the risk is believed to be minor with proper planning and execution. The burn plan for any habitat improvement prescribed fire would consider such things as burn timing (season and time of day), firing technique, wind direction and speed and atmospheric conditions to minimize the risk of a fire escaping. Mechanical treatment (slashing) of vegetation would also be used as necessary prior to a prescribed burn to help manage/control the prescribed burn. Lastly, there are a considerable number of fire-breaks on and around the CFWMA which would help limit the potential for any fire to spread beyond the desired burn area when fires are conducted as planned. Fire breaks include roads, Canyon Ferry Reservoir, the Missouri River, the four large duck ponds on the CFWMA and the two canals that provide water to the duck ponds. Lastly, trained fire personnel would be present on the site conducting and monitoring the burn with equipment to make sure the fire didn't get away.

PART III. NARRATIVE EVALUATION AND COMMENT

This analysis did not reveal any significant impacts to the human or physical environment. If implemented, the proposed action alternative would work to improve wildlife habitat conditions for waterfowl, upland game birds (primarily pheasant) and big game (primarily white-tailed deer and moose) on the CFWMA all of which are objective of the CFWMA. Prescribed fire would be utilized to revitalize decadent stands of dense nesting cover and other areas of herbaceous vegetation, improve the structure of decadent stands of cattails and bulrushes or to help kill cattails if needed to create more open water in ponds, and to regenerate decadent stands of willows and sprouting shrubs.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Public notices in each of these papers: Bozeman Chronicle, Helena Independent Record, Broadwater County Reporter
- Public notice on the Fish, Wildlife & Parks web page: *http://fwp.mt.gov*.

Copies of this environmental assessment will be distributed to interested parties to ensure their knowledge of the proposed project.

This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

2. Duration of comment period:

The public comment period will extend for (30) thirty days following the publication of the second legal notice in area newspapers. Written or email comments will be accepted until September 13, 2019 and can be mailed or emailed to the addresses below:

Attention: Adam Grove
Montana Fish, Wildlife & Parks
P.O. Box 998
Townsend, MT 59644
adgrove@mt.gov

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

No, an EIS is not required. Based on an evaluation of impacts to the physical and human environment under MEPA, this environmental review revealed no significant impacts from the proposed action; therefore, an environmental assessment is deemed to be the appropriate level of analysis.

2. Person(s) responsible for preparing the EA:

Adam Grove, MFWP Wildlife Biologist - Townsend

3. List of agencies or offices consulted during preparation of the EA:

Montana Fish, Wildlife and Parks (Wildlife Division, Responsive Management Unit, Legal Unit)
Bureau of Reclamation

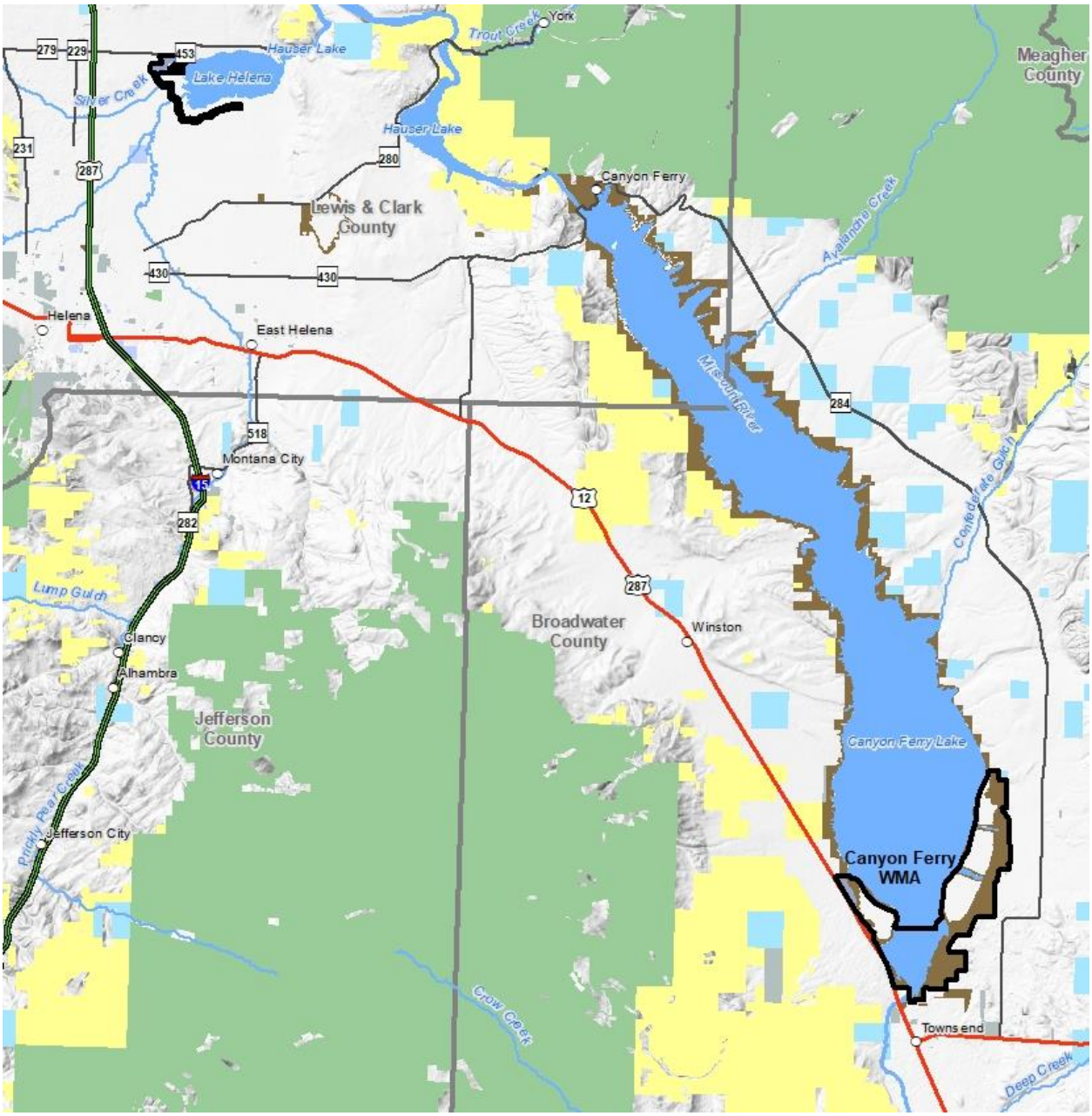

Figure 1. Map showing general location of the Canyon Ferry WMA.

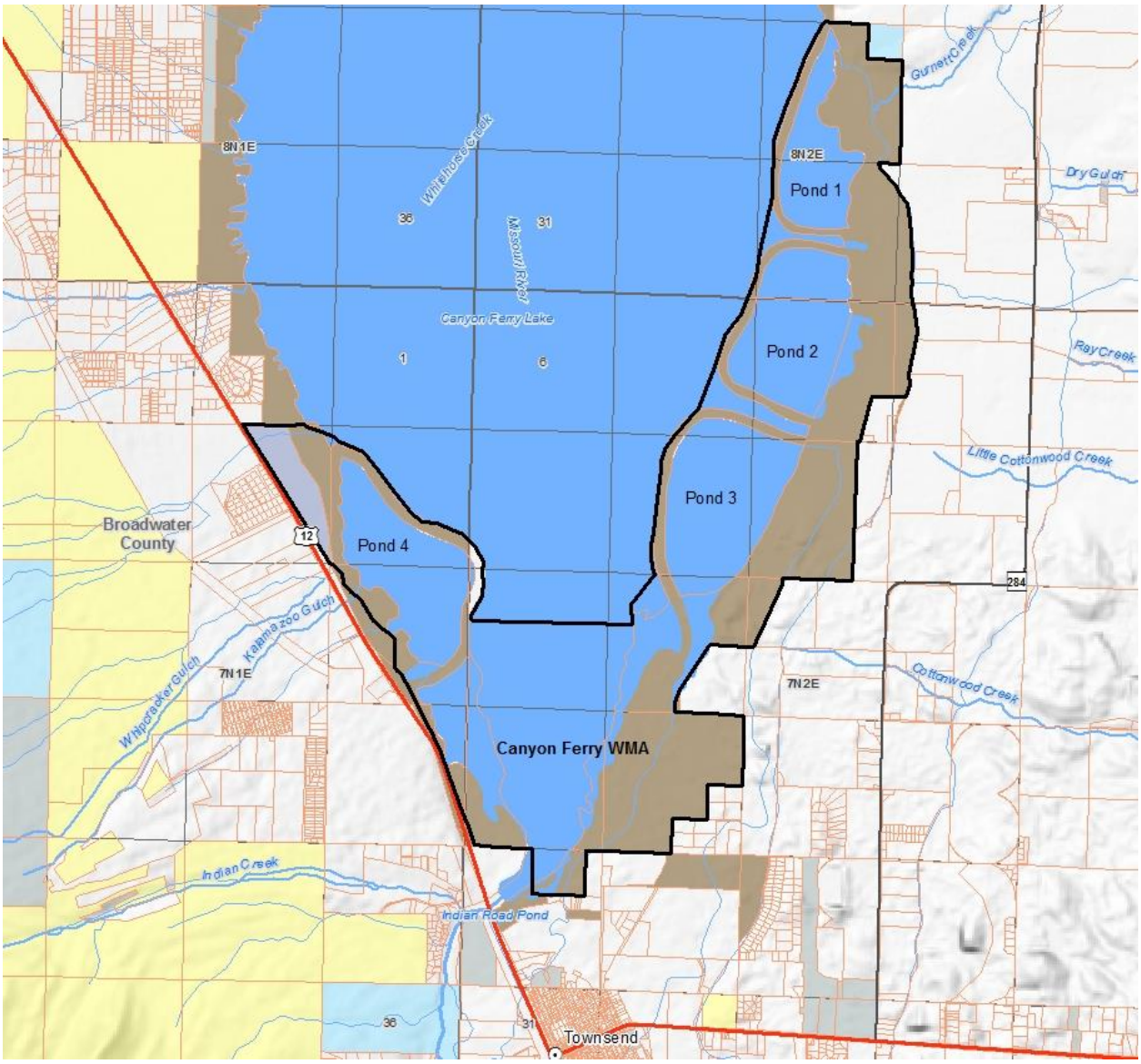

Figure 2. Map showing landownership of the CFWMA (brown is BOR and light purple is FWP).

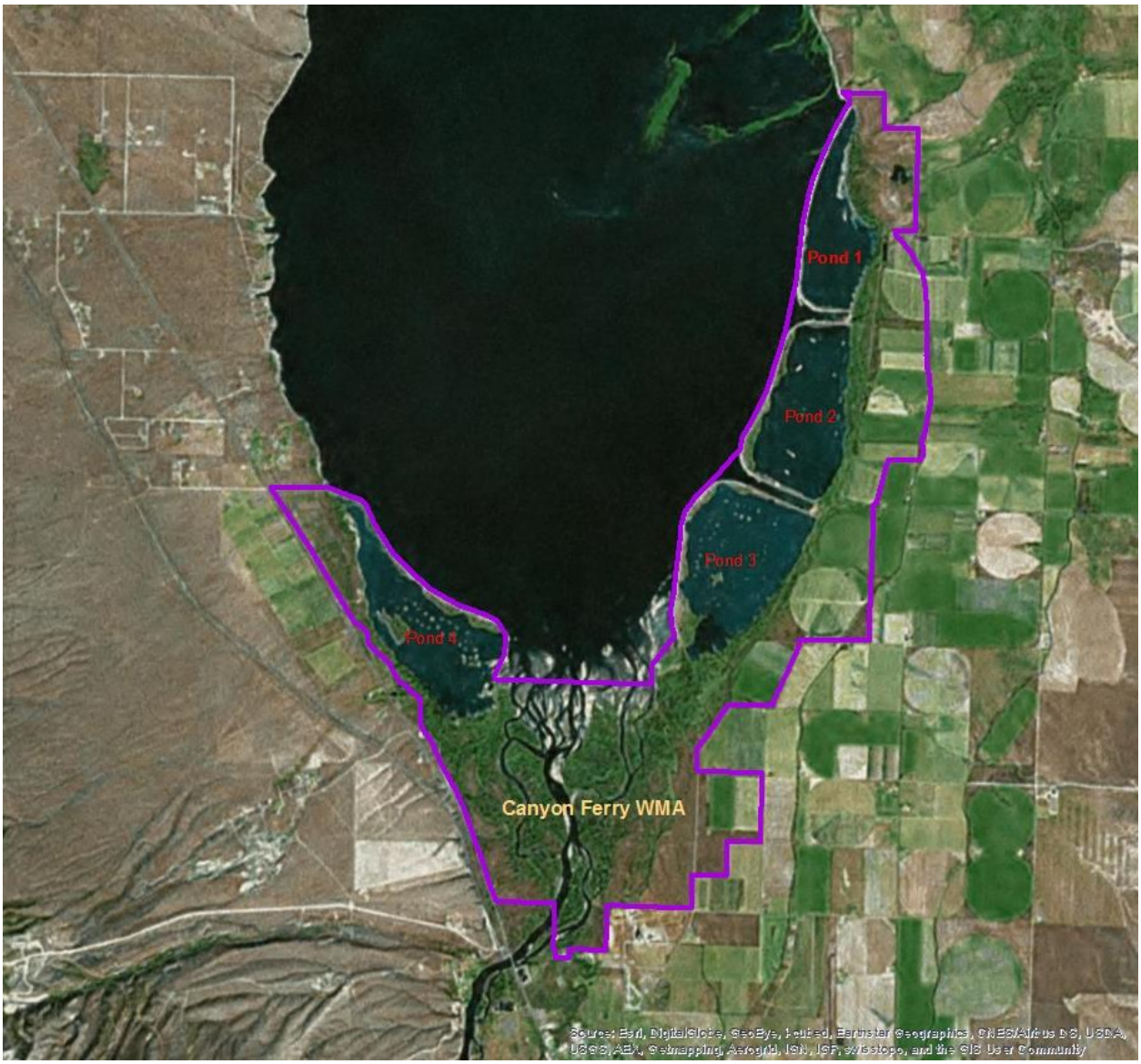

Figure 3. Aerial map of the CFWMA.